10/057,928

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=> s polymer? and backbone? 91340 POLYMER? AND BACKBONE?

=> s 11 and (polyether or polyethylene glycol or glycol or PEG or poly (3a) sulfone or poly (3a) sulfoxide or thiophosphate or phosphoramidate or phosphonate) 43739 L1 AND (POLYETHER OR POLYETHYLENE GLYCOL OR GLYCOL OR PEG OR POLY (3A) SULFONE OR POLY (3A) SULFOXIDE OR THIOPHOSPHATE OR PHOSPHORAMIDATE OR PHOSPHONATE)

=> s 12 and chiral (4a) carbon? 254 L2 AND CHIRAL (4A) CARBON?

=> s 13 an nucleobase? MISSING OPERATOR L3 AN

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> s 13 and nucleobase?

41 L3 AND NUCLEOBASE?

=> s l4 and link?

41 L4 AND LINK?

=> dup rem 15

AN

PROCESSING COMPLETED FOR L5

41 DUP REM L5 (0 DUPLICATES REMOVED)

=> d 16 bib abs 1-41

ANSWER 1 OF 41 USPATFULL on STN 1.6

2004:334813 USPATFULL

TI Methods and compositions in breast cancer diagnosis and therapeutics

IN Fuqua, Suzanne, Sugar Land, TX, UNITED STATES Allred, D. Craig, Houston, TX, UNITED STATES O'Connell, Peter, Houston, TX, UNITED STATES Hopp, Torsten A., Pearland, TX, UNITED STATES

```
Division of Ser. No. US 2002-52092, filed on 18 Jan 2002, PENDING
RLI
                        20010119 (60)
PRAI
       US 2001-262990P
       US 2001-304018P
                           20010709 (60)
DT
       Utility
FS
       APPLICATION
       FULBRIGHT & JAWORSKI, LLP, 1301 MCKINNEY, SUITE 5100, HOUSTON, TX,
LREP
       77010-3095
       Number of Claims: 10
CLMN
       Exemplary Claim: CLM-01-63
ECL
       9 Drawing Page(s)
DRWN
LN.CNT 6477
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention is directed to compositions regarding a specific
       mutation in estrogen receptor alpha and their use as diagnostic markers
       in breast tissue, such as premalignant lesions, for the development of
       breast cancer. More specifically, cells of breast cancer whose nucleic
       acid comprises the estrogen receptor alpha mutation identify the breast
       cancer to be an invasive breast cancer.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 2 OF 41 USPATFULL on STN
1.6
       2004:292151 USPATFULL
AΝ
       Atropisomers of asymmetric xanthene fluorescent dyes and methods of DNA
TI
       sequencing and fragment analysis
       Lee, Linda G., Palo Alto, CA, UNITED STATES
IN
       Taing, Meng C., San Mateo, CA, UNITED STATES
       Rosenblum, Barnett B., San Jose, CA, UNITED STATES
PΑ
       Applera Corporation, Foster City, CA (U.S. corporation)
       US 2004229235
                        A1
                               20041118
PI
ΑI
       US 2003-716165
                         A1
                               20031118 (10)
       Division of Ser. No. US 2002-227058, filed on 21 Aug 2002, GRANTED, Pat.
RLI
       No. US 6649769 Division of Ser. No. US 2000-704966, filed on 1 Nov 2000,
       GRANTED, Pat. No. US 6448407
DT
       Utility
       APPLICATION
FS
       MILA KASAN, PATENT DEPT., APPLIED BIOSYSTEMS, 850 LINCOLN CENTRE DRIVE,
LREP
       FOSTER CITY, CA, 94404
CLMN
       Number of Claims: 34
ECL
       Exemplary Claim: CLM-01-55
DRWN
       21 Drawing Page(s)
LN.CNT 2077
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Atropisomeric energy-transfer dye compounds are disclosed. A variety of
       molecular biology applications utilize atropisomeric xanthene
       fluorescent dyes as labels for substrates such as nucleotides,
       nucleosides, polynucleotides, polypeptides and carbohydrates. Methods
       include DNA sequencing, DNA fragment analysis, PCR, SNP analysis,
       oligonucleotide ligation, amplification, minisequencing, and primer
       extension.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 3 OF 41 USPATFULL on STN
L6
       2004:267343 USPATFULL
AN
       Targeting cellular entry, cell survival, and pathogenicity by dynein
ΤI
       light chain 1/PIN in human cells
       Kumar, Rakesh, Houston, TX, UNITED STATES
IN
       Vadlamudi, Ratna, Houston, TX, UNITED STATES
                      A1 20041021
ΡI
       US 2004208880
                        A1
ΑI
       US 2004-787603
                               20040226 (10)
       US 2003-451117P
                         20030226 (60)
PRAI
DТ
       Utility
FS
       APPLICATION
```

FULBRIGHT & JAWORSKI, LLP, 1301 MCKINNEY, SUITE 5100, HOUSTON, TX,

PΤ

ΑÌ

LREP

77010-3095

US 2004265895

US 2004-896419

A 1

A1

20041230

20040721 (10)

```
CLMN
       Number of Claims: 56
EČL
       Exemplary Claim: 1
DRWN
       48 Drawing Page(s)
LN.CNT 6515
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Methods of modulating macropinocytosis in cells of a target cell
       population by modulating the binding of Pak1 to DLC1/PIN are disclosed.
       In addition, the invention provides for methods of screening for
       modulators of macropinocytosis that involve determining whether a
       candidate substance inhibits or promotes the binding of Pak1 to
       DLC1/PIN. Also disclosed are methods of reducing cell proliferation in a
       target cell population, methods of inhibiting growth and survival of a
       cancer cell, methods of inhibiting the invasiveness of a cancer cell,
       and methods of treating viral infection using an agent that modifies the
       binding of Pak1 to DLC1/PIN.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L6
     ANSWER 4 OF 41 USPATFULL on STN
AN
       2004:144527 USPATFULL
       Comparative analysis of nucleic acids using population tagging
TI
IN
       Winkler, Matthew M., Austin, TX, UNITED STATES
       Brown, David, Austin, TX, UNITED STATES
PΙ
       US 2004110191
                               20040610
                         A1
       US 2003-632539
ΑI
                         A1
                               20030731 (10)
       Continuation of Ser. No. WO 2002-US3097, filed on 31 Jan 2002, PENDING
RLI
       Continuation of Ser. No. WO 2002-US3168, filed on 31 Jan 2002, PENDING
       Continuation of Ser. No. WO 2002-US2892, filed on 31 Jan 2002, PENDING
       Continuation of Ser. No. WO 2002-US3169, filed on 31 Jan 2002, PENDING
PRAI
       US 2001-265694P
                           20010131 (60)
                           20010131 (60)
       US 2001-265693P
       US 2001-265695P
                           20010131 (60)
       US 2001-265692P
                           20010131 (60)
DT
       Utility
FS
       APPLICATION
LREP
       FULBRIGHT & JAWORSKI L.L.P., 600 CONGRESS AVE., SUITE 2400, AUSTIN, TX,
CLMN
       Number of Claims: 51
ECL
       Exemplary Claim: 1
DRWN
       9 Drawing Page(s)
LN.CNT 2995
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       Disclosed are methods that allow one or more nucleic acid targets to be
      compared across two or more nucleic acid samples. Nucleic acid tags are
       appended to the samples to be assessed, such that each sample has a
       unique tag. The tagged nucleic acids are then mixed, and the targets
       within the mixture are amplified. The amplification products are
       distinguished using the unique tag domains to reveal the abundance of
       the amplification products derived from each sample, which correlates to
       the relative abundance of the target in the samples.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L6
     ANSWER 5 OF 41 USPATFULL on STN
AN
       2004:108372 USPATFULL
       Novel phosphate and thiophosphate protecting groups
TI
       Guzaev, Andrei P., Vista, CA, UNITED STATES
IN
       Manoharan, Muthiah, Cambridge, MA, UNITED STATES
PΙ
       US 2004082774
                         A1
                               20040429
ΑI
       US 2003-610664
                        A1
                               20030630 (10)
       Continuation-in-part of Ser. No. US 2000-526386, filed on 16 Mar 2000,
RLI
       GRANTED, Pat. No. US 6610837 Continuation-in-part of Ser. No. US
```

1999-268797, filed on 16 Mar 1999, GRANTED, Pat. No. US 6121437

WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE - 46TH FLOOR, PHILADELPHIA, PA.

DT

FS

LREP

CLMN

Utility

APPLICATION

Number of Claims: 63

ECL Exemplary Claim: 1 DRWN 8 Drawing Page(s) LN.CNT 3143 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Novel P(III) bisamidite reagents as phosphorus protecting groups, nucleoside phosphoramidite intermediates, and synthetic processes for making the same are disclosed. Furthermore, oligomeric compounds are prepared through the protection of one or more internucleosidic phosphorus functionalities, preferably followed by oxidation and cleavage of the protecting groups to provide oligonucleotides. Methods for preparing oligoribonucleotides are also disclosed. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 6 OF 41 USPATFULL on STN 2004:76595 USPATFULL

```
L6
AN
ΤI
       Competitive amplification of fractionated targets from multiple nucleic
       acid samples
       Winkler, Matthew M., Austin, TX, UNITED STATES
IN
       Brown, David, Austin, TX, UNITED STATES
PI
       US 2004058373
                          A1
                               20040325
ΑI
       US 2003-632534
                          A1
                               20030731 (10)
       Continuation of Ser. No. WO 2002-US3169, filed on 31 Jan 2002, PENDING
RLI
PRAI
       WO 2002-US3168
                           20020131
       WO 2002-US2892
                           20020131
       WO 2002-US3097
                           20020131
       WO 2002-US3169
                           20020131
       US 2001-265692P
                           20010131 (60)
       US 2001-265693P
                           20010131 (60)
       US 2001-265695P
                           20010131 (60)
       US 2001-265694P
                           20010131 (60)
DΤ
       Utility
FS
      APPLICATION
LREP
       FULBRIGHT & JAWORSKI L.L.P., 600 CONGRESS AVE., SUITE 2400, AUSTIN, TX,
CLMN
      Number of Claims: 63
ECL
       Exemplary Claim: 1
```

DRWN 2 Drawing Page(s)

LN.CNT 2723

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ÄΒ Disclosed are methods that allow one or more targets to be compared across two or more nucleic acid populations. The methods rely on first mixing sample populations that are being compared. The sample mixture is then divided into target fractions using hybridization to polynucleotides or oligonucleotides that can be separated from the sample mixture. The target fraction(s) are independently amplified such that the targets from each sample compete for amplification reagents. The amplification products are quantified in a manner that differentiates the sample from which a particular amplification product arose. The relative abundance of amplification products descended from each sample population reflects the level of target present in each of the original samples, providing a direct comparison of the abundance of the target sequences in the samples being characterized.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 7 OF 41 USPATFULL on STN
L6
AN
       2004:64489 USPATFULL
       Templated molecules and methods for using such molecules
TI
IN
       Pedersen, Henrik, Bagsvaerd, DENMARK
       Gouilaev, Alex Haahr, Vesko Sjaelland, DENMARK
       Franch, Thomas, Odense C, DENMARK
       Sams, Christian Klarner, Frederiksberg C, DENMARK
       Olsen, Eva Kampmann, Herlev, DENMARK
       Slok, Frank Abilgaard, Kobenhavn N, DENMARK
       Husemoen, Gitte Nystrup, Kobenhavn N, DENMARK
       Felding, Jakob, Charlottenlund, DENMARK
Hyldtoft, Lene, Virum, DENMARK
```

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Godskesen, Michael Anders, Vedbaek, DENMARK
       Glad, Sanne Schroder, Ballerup, DENMARK
       Thisted, Thomas, Frederikssund, DENMARK
       Freskgard, Per-Ola, Vellinge, SWEDEN
       Holtmann, Anette, Ballerup, DENMARK
       Nuevolution A/S, Copenhagen, DENMARK (non-U.S. corporation)
       US 2004049008
                          A1
                               20040311
                          A1
                               20020620 (10)
       US 2002-175539
                          20010620
PRAI
       DK 2001-962
                           20010621 (60)
       US 2001-299443P
       US 2002-364056P
                           20020315 (60)
       Utility
       APPLICATION
       BROWDY AND NEIMARK, P.L.L.C., 624 NINTH STREET, NW, SUITE 300,
LREP
       WASHINGTON, DC, 20001-5303
       Number of Claims: 316
CLMN
       Exemplary Claim: 1
       100 Drawing Page(s)
DRWN
LN.CNT 11215
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention relates to a method for synthesising templated
       molecules. In one aspect of the invention, the templated molecules are
       linked to the template which templated the synthesis thereof.
       The intion allows the generation of libraries which can be screened for
       e.g. therapeutic activity.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 8 OF 41 USPATFULL on STN
       2004:31128 USPATFULL
       Methods and compositions for aptamers against anthrax
       Vivekananda, Jeevalatha, San Antonio, TX, UNITED STATES
       Kiel, Johnathan L., Universal, TX, UNITED STATES
       US 2004023266
                          A1
                               20040205
                               20030311 (10)
       US 2003-387314
                          A1
       Division of Ser. No. US 2001-978753, filed on 15 Oct 2001, GRANTED, Pat.
       No. US 6569630 Continuation-in-part of Ser. No. US 2001-909492, filed on
       19 Jul 2001, ABANDONED Continuation-in-part of Ser. No. US 2000-608706,
       filed on 30 Jun 2000, GRANTED, Pat. No. US 6303316
       US 1999-142301P
                           19990702 (60)
PRAT
       US 2000-199620P
                           20000425 (60)
       US 2001-291371P
                           20010515 (60)
       Utility
       APPLICATION
       Blakely Sokoloff Taylor & Zafman, Seventh Floor, 12400 Wilshire
LREP
       Boulevard, Los Angeles, CA, 90025-1030
CLMN
       Number of Claims: 17
       Exemplary Claim: 1
DRWN
       4 Drawing Page(s)
LN.CNT 2810
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention concerns methods of preparing nucleic acid ligands
       against anthrax spores, compositions comprising anthrax specific nucleic
       acid ligands and methods of use of such ligands for detection and/or
       neutralization of anthrax spores.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 9 OF 41 USPATFULL on STN
       2004:31127 USPATFULL
       Methods and compositions for nucleic acid ligands against Shiga toxin
       and/or Shiga-like toxin
       Vivekananda, Jeevalatha, San Antonio, TX, UNITED STATES
       Kiel, Johnathan L., Universal City, TX, UNITED STATES
       US 2004023265
                          A1
                               20040205
```

Norregaard-Madsen, Mads, Birkerod, DENMARK

PA PΙ

ΑI

DT

FS

ECL

1.6 AN

TI

IN

PΙ

ΑI

RLI

DT

FS

ECL

AB

L6 AN

ΤI

IN

PI

ΑI

RLI

US 2003-386778

A1

20030311 (10)

Continuation-in-part of Ser. No. US 2001-978753, filed on 15 Oct 2001,

```
'GRANTED, Pat. No. US 6569630 Continuation-in-part of Ser. No. US
       2001-909492, filed on 19 Jul 2001, ABANDONED Continuation-in-part of
       Ser. No. US 2000-608706, filed on 30 Jun 2000, GRANTED, Pat. No. US
       6303316
       US 2002-379904P
                           20020510 (60)
       US 1999-142301P
                           19990702 (60)
       US 2000-199620P
                           20000425 (60)
       Utility
       APPLICATION
       Blakely Sokoloff Taylor & Zafman, Seventh Floor, 12400 Wilshire
       Boulevard, Los Angeles, CA, 90025-1030
       Number of Claims: 33
       Exemplary Claim: 1
       No Drawings
LN.CNT 1725
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention concerns methods of preparing nucleic acid ligands
       against Shiga toxin and/or Shiga-like toxin, compositions comprising
       nucleic acid ligands that bind Shiga toxin and/or Shiga-like toxin,
       nucleic acid ligands comprising contiguous nucleotide sequences selected
       from SEQ ID NO:1 through SEQ ID NO:11 and methods of use of such ligands
       for detection and/or neutralization of Shiga toxin and/or Shiga-like
       toxin.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 10 OF 41 USPATFULL on STN
       2004:276481 USPATFULL
       High efficiency mRNA isolation methods and compositions
       Conrad, Richard C., Austin, TX, United States
       Ambion, Inc., Austin, TX, United States (U.S. corporation)
       US 6812341
                        В1
                               20041102
                        A1
                               20041118
       US 2004230048
       US 2001-854412
                               20010511 (9)
       Utility
       GRANTED
EXNAM Primary Examiner: Ketter, James; Assistant Examiner: Lambertson, David
       Fulbright & Jaworski L.L.P.
       Number of Claims: 36
       Exemplary Claim: 1
       3 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1291
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention provides methods and compositions, including kits,
       for the isolation and purification of mRNA, particularly poly(A) RNA. It
       concerns the use of isostabilizing salts such as TMAC and TEAC to reduce
       rRNA carryover during the purification process, thus facilitating the
       isolation of poly(A) RNA.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 11 OF 41 USPATFULL on STN
       2004:72560 USPATFULL
       Method of screening Rett syndrome by detecting a mutation in MECP2
       Zoghbi, Huda Y., Houston, TX, United States
       Van den Veyver, Ignatia B., Bellaire, TX, United States
       Amir, Ruthie, Haifa, ISRAEL
       Francke, Uta, Los Altos Hills, CA, United States
       Baylor College of Medicine, Houston, TX, United States (U.S.
       corporation)
       US 6709817
                          B1
                               20040323
       US 2000-657013
                               20000907 (9)
       US 1999-152778P
                         19990907 (60)
      Utility
       GRANTED
```

PRAI

DT

FS

LREP

CLMN

ECL DRWN

1.6 AN

TI

INPA

PΙ

AΙ DT

FS

LREP

CLMN

DRWN

ECL

AB

1.6

AN TI

IN

PA

PΤ

AΙ

DT

FS

PRAI

LREP

EXNAM Primary Examiner: McKelvey, Terry

Fulbright & Jaworski, LLP

```
ECL
       Exemplary Claim: 1
DRWN
       5 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 7172
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       The present invention relates to the identification of mutations in a
       gene encoding a methyl-CpG-binding domain containing protein or
       alterations in its corresponding protein in neurodevelopmental disease.
       The protein acts in a complex to regulate transcriptional repression
       through methylated CpG dinucleotides. Methods to screen mutations in
       said gene or alterations in said protein related to neurodevelopmental
       disease are provided. Methods to treat a vertebrate with said disease
       are also provided.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L6
     ANSWER 12 OF 41 USPATFULL on STN
       2003:294787 USPATFULL
AN
ΤI
       Modified peptide nucleic acids
       Manoharan, Muthiah, Carlsbad, CA, UNITED STATES
TN
       Rajeev, Kallanthottathil G., Vista, CA, UNITED STATES
PΙ
       US 2003207804
                               20031106
                          A1
       US 2002-155920
ΑI
                          Α1
                               20020524 (10)
       US 2001-293592P
PRAI
                           20010525 (60)
DT
       Utility
       APPLICATION
FS
LREP
       WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE, 46TH FLOOR, 1650 MARKET
       STREET, PHILADELPHIA, PA, 19103
CLMN
       Number of Claims: 124
ECL
       Exemplary Claim: 1
DRWN
       18 Drawing Page(s)
LN.CNT 3302
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present peptide nucleic acids exhibit enhanced cellular uptake and
       distribution. The peptide nucleic acids of the invention comprise
       naturally-occurring nucleobases and non-naturally-occurring
       nucleobases attached to a polyamide backbone.
       Non-naturally-occurring bases include monocyclic, bi-cyclic, and
       tricyclic heterocycles. Modified backbones are also provided.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L6
     ANSWER 13 OF 41 USPATFULL on STN
AN
       2003:294256 USPATFULL
TI
       Methods and compositions for biological sensors
IN
       Holwitt, Eric A., San Antonio, TX, UNITED STATES
       Kiel, Johnathan L., Universal City, TX, UNITED STATES
PΙ
       US 2003207271
                          Α1
                               20031106
                               20011227 (10)
AΙ
       US 2001-34127
                          A1
       Continuation-in-part of Ser. No. US 2000-608706, filed on 30 Jun 2000,
RLI
       GRANTED, Pat. No. US 6303316
PRAI
       US 2000-258518P
                           20001228 (60)
DT
       Utility
FS
       APPLICATION
       Blakely, Sokoloff, Taylor & Zafman, Seventh Floor, 12400 Wilshire
LREP
       Boulevard, Los Angeles, CA, 90025-1030
       Number of Claims: 22
CLMN
ECL
       Exemplary Claim: 1
DRWN
       7 Drawing Page(s)
LN.CNT 2777
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention concerns compositions, apparatus and methods of
       use of recognition complexes, comprising biological sensors operably
       linked to an organic semiconductor. Multiple recognition
       complexes can be associated into a recognition complex system. The
       recognition complex system is of use to identify analytes, to separate
       biological sensors that bind to a target analyte from those that do not,
       to separate analytes that bind to a specific biological sensor from
```

CLMN

Number of Claims: 10

those that do not, and to prepare biological sensors with a high affinity for a particular analyte. The recognition complex system may be attached to a variety of surfaces, such as a chip, a flow cell, magnetic beads or non-magnetic beads. The biological sensor may be used for screening of, for example, a phage library, combinatorial chemistry library, plant tissue extract or animal tissue extract for inhibitors, activators or binding factors of bioactive molecules.

```
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 14 OF 41 USPATFULL on STN
1.6
       2003:282637 USPATFULL
AN
TI
      Heteroconfigurational polynucleotides and methods of use
      Greenfield, I. Lawrence, San Mateo, CA, UNITED STATES
IN
      Matysiak, Stefan M., Montara, CA, UNITED STATES
       Schroeder, Benjamin, San Mateo, CA, UNITED STATES
      Vinayak, Ravi, Mountain View, CA, UNITED STATES
      Applera Corporation, Foster City, CA (U.S. corporation)
PA
PΙ
      US 2003198980
                        A1
                               20031023
      US 2001-343519P 2001
Utility
AΙ
                               20021223 (10)
                         20011221 (60)
PRAI
DT
      Utility
FS
      APPLICATION
      MILA KASAN, PATENT DEPT., APPLIED BIOSYSTEMS, 850 LINCOLN CENTRE DRIVE,
LREP
      FOSTER CITY, CA, 94404
CLMN
      Number of Claims: 85
ECL
      Exemplary Claim: 1
DRWN
      12 Drawing Page(s)
LN.CNT 2223
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      Methods, compositions and kits are disclosed that utilize
AB
      heteroconfigurational polynucleotide comprising a D-form polynucleotide
       sequence portion and an L-form polynucleotide sequence portion that is
       covalently linked to the D-form polynucleotide sequence
      portion.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 15 OF 41 USPATFULL on STN
L6
       2003:271466 USPATFULL
AN
TI
      Nucleic acid derivatives
IN
      Segev, David, Mazkeret Batya, ISRAEL
      Bio-Rad Laboratories Inc. (non-U.S. corporation)
PA
                     A1 20031009
      US 2003191074
                        A1
                               20020129 (10)
      US 2002-57928
      US 2001-264308P
PRAI
                         20010129 (60)
```

PΙ

ΑI

DTUtility

FS APPLICATION

G.E. EHRLICH (1995) LTD., c/o ANTHONY CASTORINA, SUITE 207, 2001 LREP JEFFERSON DAVIS HIGHWAY, ARLINGTON, VA, 22202

CLMN Number of Claims: 102 ECL Exemplary Claim: 1 DRWN 33 Drawing Page(s)

LN.CNT 2941

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A compound which comprises a backbone having a plurality of chiral carbon atoms, the backbone bearing a plurality of ligands each being individually bound to a chiral carbon atom of the plurality of chiral carbon atoms, the ligands including one or more pair(s) of adjacent ligands each containing a moiety selected from the group consisting of a naturally occurring nucleobase and a nucleobase binding group, wherein moieties of the one or more pair(s) are directly linked to one another via a linker chain; building blocks for synthesizing the compound; and rises of the compound, particularly in antisense therapy.

```
2003:265298 USPATFULL
AN
       Methods and compositions in breast cancer diagnosis and therapeutics
ΤI
       Fugua, Suzanne, Sugar Land, TX, UNITED STATES
IN
       O'Connell, Peter, Houston, TX, UNITED STATES Allred, D. Craig, Houston, TX, UNITED STATES
       Hopp, Torsten A., Pearland, TX, UNITED STATES
                       A1 20031002
PΙ
       US 2003186313
       US 2003-437107
                               20030513 (10)
                          A1
ΑI
       Division of Ser. No. US 2002-52092, filed on 18 Jan 2002, PENDING
RLI
PRAI
       US 2001-262990P 20010119 (60)
       US 2001-304018P
                           20010709 (60)
DT
       Utility
FS
       APPLICATION
LREP
       FULBRIGHT & JAWORSKI, LLP, 1301 MCKINNEY, SUITE 5100, HOUSTON, TX,
       77010-3095
CLMN
       Number of Claims: 63
       Exemplary Claim: 1
ECL
DRWN
       9 Drawing Page(s)
LN.CNT 6708
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       The present invention is directed to compositions regarding a specific
       mutation in estrogen receptor alpha and their use as diagnostic markers
       in breast tissue, such as premalignant lesions, for the development of
       breast cancer. More specifically, cells of breast cancer whose nucleic
       acid comprises the estrogen receptor alpha mutation identify the breast
       cancer to be an invasive breast cancer.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 17 OF 41 USPATFULL on STN
       2003:250923 USPATFULL
AN
TI
       Method and system for depleting rRNA populations
IN
       Murphy, George L., Austin, TX, UNITED STATES
       Whitley, J. Penn, Austin, TX, UNITED STATES
PΙ
                       A1 20030918
       US 2003175709
       US 2001-29397
ΑI
                          A1
                               20011220 (10)
\mathsf{DT}
       Utility
FS
       APPLICATION
       FULBRIGHT & JAWORSKI L.L.P., A REGISTERED LIMITED LIABILITY PARTNERSHIP,
LREP
       600 CONGRESS AVENUE, SUITE 2400, AUSTIN, TX, 78701
CLMN
       Number of Claims: 85
ECL
       Exemplary Claim: 1
DRWN
       48 Drawing Page(s)
LN.CNT 5589
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       The present invention concerns a system for isolating, depleting, or
       separating a targeted nucleic acid, such as rRNA, from a sample
       comprising targeted and nontargeted nucleic acids. It effects a way of
       enriching for nontargeted nucleic acids, such as mRNAs. The invention
       further concerns methods of implementing the system and kits for
       implementing the system, which involves at least one bridging nucleic
       acid comprising 1) a targeting region complementary to a region on the
       targeted nucleic acid and 2) a bridging region complementary to the
       capture region of a capture nucleic acid that comprises a nonreactant
       structure. The nonreactant structure can be used to isolate the
       hybridizing molecules after incubation under conditions that allows
       hybridization.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

Methods and composition concerning herpesvirus Us3 and BAD-involved

L6

L6

AN

TΙ

IN

ANSWER 18 OF 41 USPATFULL on STN

Munger, Joshua, Chicago, IL, UNITED STATES Roizman, Bernard, Chicago, IL, UNITED STATES

2003:244865 USPATFULL

apoptosis

ANSWER 16 OF 41 USPATFULL on STN

```
. US 2003171279
       US 2002-209967
                               20020731 (10)
ΑI
                         A1
                          20010731 (60)
       US 2001-308929P
PRAI
DT
       Utility
FS
       APPLICATION
       Charles P. Landrum, FULBRIGHT & JAWORSKI L.L.P., SUITE 2400, 600
LREP
       CONGRESS AVENUE, AUSTIN, TX, 78701-3271
CLMN
       Number of Claims: 83
       Exemplary Claim: 1
ECL
       4 Drawing Page(s)
DRWN
LN.CNT 6432
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention concerns methods of compositions for inhibiting or
       inducing apoptosis in a cell. The methods and compositions concern
       either the herpesviral protein U.sub.S3, the cellular pro-apoptotic
       polypeptide BAD, or modulators thereof to modulate apoptosis in a cell.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 19 OF 41 USPATFULL on STN
L6
AN
       2003:244839 USPATFULL
       Methods and compositions relating to modulation of A20
TI
       Ma, Averil, Chicago, IL, UNITED STATES
IN
       Boone, David, Chicago, IL, UNITED STATES
       Lee, Eric, Torrance, CA, UNITED STATES
       US 2003171253 A1
                               20030911
PΙ
                               20020418 (10)
       US 2002-125770
                         A1
ΑI
       US 2001-285427P
                          20010419 (60)
PRAI
DT
       Utility
FS
       APPLICATION
LREP
       Robert E. Hanson, Fulbright & Jaworski L.L.P., Suite 2400, 600 Congress
       Avenue, Austin, TX, 78701
       Number of Claims: 82
CLMN
       Exemplary Claim: 1
ECL
DRWN
       37 Drawing Page(s)
LN.CNT 5875
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    · The invention provides compositions and methods for treating diseases
       characterized by aberrant programmed cell death and/or inflammation,
       comprising mediating A20 function in the subject. Such diseases include
       Crohn's disease, inflammatory bowel disease, a disease associated with
       ischemic injury, a toxin-induced liver disease and cancer. The invention
       further provides methods and compositions for assays for modulators of
       A20.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 20 OF 41 USPATFULL on STN
1.6
       2003:232533 USPATFULL
AN
TI
       Modulation of DENN-MADD expression and interactions for treating
       neurological disorders
       Miller, Carol A., San Marino, CA, UNITED STATES
IN
       Villar, Keith Del, Los Angeles, CA, UNITED STATES
PΙ
       US 2003162734
                       A1
                               20030828
       US 2002-187264
                               20020628 (10)
AΙ
                         A1
       US 2001-301608P
                          20010628 (60)
PRAI
       Utility
DT
       APPLICATION
FS
       BINGHAM MCCUTCHEN LLP, 18th Floor, Three Embarcadero Center, San
LREP
       Francisco, CA, 94111
CLMN
       Number of Claims: 30
ECL
       Exemplary Claim: 1
DRWN
       9 Drawing Page(s)
LN.CNT 2629
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention describes methods for treating neurodegenerative diseases
AB
       by modulating the expression of DENN in neuronal cells. It has been
       observed that neurodegenerative disease states are characterized by
```

A 1

20030911

PΤ

abnormal expression of DENN. The overexpression of DENN induces cell death in neuronal cells. However, reduced expression of DENN also characterizes neural tissue affected by neurodegenerative disease. Also disclosed are methods for treating neurodegenerative diseases by inhibiting the interaction of DENN-MADD (Differentially Expressed in Normal versus Neoplastic/MAPK Activating Death Domain containing) protein, also referred to herein as DENN, with c-Jun N-terminal kinases (JNKs). The invention further describes methods for treating neurodegenerative diseases by inhibiting the interaction of DENN-MADD with the p55 tumor necrosis factor receptor I (TNFRI).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 21 OF 41 USPATFULL on STN
L6
AN
       2003:213783 USPATFULL
TI
       Gene products that regulate glucose response in cells
IN
       Newgard, Christopher B., Dallas, TX, UNITED STATES
       Jensen, Per Bo, Ballerup, DENMARK
PΙ
       US 2003148421
                          A1
                               20030807
       US 2002-80381
                               20020219 (10)
                          A1
AΙ
       US 2001-270251P
                           20010220 (60)
PRAI
       US 2001-274706P
                           20010309 (60)
       US 2001-291354P
                           20010515 (60)
DT
       Utility
FS
       APPLICATION
       Steven L. Highlander, Fullbright & Jaworski L.L.P., Suite 2400, 600
LREP
       Congress Avenue, Austin, TX, 78701
CLMN
       Number of Claims: 55
       Exemplary Claim: 1
ECL
DRWN
       12 Drawing Page(s)
LN.CNT 6287
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention describes the identification of numerous genes,
AB
       both known and unknown, that play an important role in the ability of
       cell to respond to glucose stimulation under physiologic conditions.
```

These genes may be used to enhance, stabilize or introduce

drug screening and as diagnostic indicators for the loss of

glucose-responsiveness in a host cell, in particular, a host cell that secretes insulin. In addition, these genes may be used as targets for

the development of diagnostic, prophylactic and therapeutic agents for Parkinson's Disease. In specific embodiments, two point mutations are

identified in exon 1 of the NURR1 gene in 10/107 (9.3%) cases of familial Parkinson's disease (PD). The mutations reduce NURR1 gene expression (mRNA and protein levels) by 87-95% and decrease tyrosine hydroxylase (a rate-limited dopamine synthesis enzyme) gene expression in vitro. It is also demonstrated that in vivo NURR1 mRNA levels in the

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 22 OF 41 USPATFULL on STN

glucose-responsiveness.

L6

```
2003:173182 USPATFULL
ΑN
      Mutant NURR1 gene in Parkinson's disease
TI
      Le, Wei-Dong, Houston, TX, UNITED STATES
IN
       Vassilatis, Demetrios K., Seattle, WA, UNITED STATES
ΡI
      US 2003119026
                        A1
                               20030626
      US 2002-205951
                               20020726 (10)
                        A1
PRAI
      US 2001-308294P
                         20010727 (60)
DT
      Utility
FS
      APPLICATION
      FULBRIGHT & JAWORSKI, LLP, 1301 MCKINNEY, SUITE 5100, HOUSTON, TX,
LREP
       77010-3095
CLMN
      Number of Claims: 51
ECL
       Exemplary Claim: 1
DRWN
       11 Drawing Page(s)
LN.CNT 6375
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The identification of mutations in NURR1 provides molecular tools for
```

.lymphocytes from the PD patients with the exon 1 mutation are reduced by 68-84%, and in over 50% sporadic PD patients the NURR1 mRNA levels in lymphocytes are significantly reduced. A homozygous polymorphism is identified in intron 6 of NURR1 that correlates with the presence of Parkinson's disease. A splicing variant in NURR1 exon 5 is identified.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L6
    ANSWER 23 OF 41 USPATFULL on STN
AN
       2003:140940 USPATFULL
ΤI
       Expression profiling in the intact human heart
IN
       Bristow, Michael R., Cherry Hills Village, CO, UNITED STATES
       Minobe, Wayne A., Golden, CO, UNITED STATES
       Lowes, Brian D., Denver, CO, UNITED STATES
       Perryman, M. Benjamin, Denver, CO, UNITED STATES
PA
       The Regents of the University of Colorado (U.S. corporation)
PΤ
       US 2003096782
                        A1
                               20030522
      US 2001-318854P 2001
Utility
                               20020911 (10)
ΑI
PRAI
                         20010911 (60)
       Utility
DT
FS
       APPLICATION
       FULBRIGHT & JAWORSKI L.L.P., A REGISTERED LIMITED LIABILITY PARTNERSHIP,
LREP
       SUITE 2400, 600 CONGRESS AVENUE, AUSTIN, TX, 78701-3271
CLMN
       Number of Claims: 44
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 2713
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       Methods for the identification of genes involved in cardiac disease
       states are provided. The methods compare gene expression between
       diseased and therapeutically treated patients. Through the
       identification of new targets, additional methods for drug screening and
       therapy also are provided.
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6

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ANSWER 24 OF 41 USPATFULL on STN
       2003:106186 USPATFULL
AN
TT
       TRAF6-regulated IKK activators (TRIKA1 and TRIKA2) and their use as
       anti-inflammatory targets
       Chen, Zhijian J., Dallas, TX, UNITED STATES
IN
       Deng, Li, Dallas, TX, UNITED STATES
                     A1 20030417
PΙ
       US 2003073097
ΑI
       US 2001-76918
                         A1
                               20011011 (10)
DT
      Utility
FS
      APPLICATION
LREP
      Steven L. Highlander, Fulbright & Jaworski L.L.P., Suite 2400, 600
      Congress Avenue, Austin, TX, 78701
CLMN
      Number of Claims: 66
ECL
      Exemplary Claim: 1
DRWN
       3 Drawing Page(s)
LN.CNT 2613
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      Proteins in the IKK and JNK signaling pathways, such as NFkB, are
```

involved in the regulation of inflammatory diseases. Through phosphorylation and polyubiquitination, IkB proteins which sequester $NF\kappa B$ in the cytoplasm, are degraded by the ubiquitin-proteasome pathway releasing NFkB to the nucleus where it is activated. The present invention provides methods utilizing the composition of proteins in the IKK, JNK and ubiquitin-proteasome pathways such as, TRAF6 or TRAF2 (E3-ubiquitin protein ligase), TRIKA1/Uev1A/Ubc13 complex (E2-ubiquitin conjugating enzyme), and TRIKA2/TAK1 (protein kinase), in screening for candidate modulators involved in activation of the IKK and JNK pathways. The application further provides methods of utilizing the candidate modulators as drug therapeutics against inflammatory and immune diseases.

```
L6
     ANSWER 25 OF 41 USPATFULL on STN
       2003:79315 USPATFULL
AN
       Atropisomers of asymmetric xanthene fluorescent dyes and methods of DNA
ΤI
       sequencing and fragment analysis
       Lee, Linda G., Palo Alto, CA; UNITED STATES
IN
       Taing, Meng C., San Mateo, CA, UNITED STATES
       Rosenblum, Barnett B., San Jose, CA, UNITED STATES
       PE Corporation (NY), Foster City, CA (U.S. corporation)
PA
                               20030320
PI
       US 2003055243
                         A1
       US 6649769
                          B2
                               20031118
       US 2002-227058
                          A1
                               20020821 (10)
AΙ
       Continuation of Ser. No. US 2000-704966, filed on 1 Nov 2000, GRANTED,
RLI
       Pat. No. US 6448407
       Utility
DT
FS
       APPLICATION
LREP
       PATTI SELAN, PATENT ADMINISTRATOR, APPLIED BIOSYSTEMS, 850 LINCOLN
       CENTRE DRIVE, FOSTER CITY, CA, 94404
       Number of Claims: 55
CLMN
       Exemplary Claim: 1
ECL
DRWN
       21 Drawing Page(s)
LN.CNT 2089
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Atropisomeric energy-transfer dye compounds are disclosed. A variety of
AB
       molecular biology applications utilize atropisomeric xanthene
       fluorescent dyes as labels for substrates such as nucleotides,
       nucleosides, polynucleotides, polypeptides and carbohydrates. Methods
       include DNA sequencing, DNA fragment analysis, PCR, SNP analysis,
       oligonucleotide ligation, amplification, minisequencing, and primer
       extension.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 26 OF 41 USPATFULL on STN
L6
AN
       2003:57423 USPATFULL
TI
       Defects in periaxin associated with myelinopathies
       Lupski, James R., Houston, TX, UNITED STATES
IN
       Boerkoel, Cornelius F., III, Houston, TX, UNITED STATES
       Takashima, Hiroshi, Houston, TX, UNITED STATES
PI
       US 2003039987
                       A1
                               20030227
                        A1
       US 2001-21955
                               20011213 (10)
AΤ
       US 2000-255217P
                           20001213 (60)
PRAI
DT
       Utility
FS
       APPLICATION
       FULBRIGHT & JAWORSKI, LLP, 1301 MCKINNEY, SUITE 5100, HOUSTON, TX,
LREP
       77010-3095
CLMN
       Number of Claims: 40
ECL
       Exemplary Claim: 1
DRWN
       9 Drawing Page(s)
LN.CNT 3695
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention relates to defects in periaxin (PRX) associated
       with myelinopathies, including Charcot-Marie-Tooth syndrome and/or
       Dejerine-Sottas syndrome. Unrelated individuals having a myelinopathy
       from Dejerine-Sottas syndrome have recessive PRX mutations. The PRX
       locus maps to a region associated with a severe autosomal recessive
       demyelinating neuropathy and is also syntenic to the Prx location on
       murine chromosome 7.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 27 OF 41 USPATFULL on STN
L6
```

Methods and compositions for the treatment of macular and retinal

Board of Regents, The University of Texas System (U.S. corporation)

Travis, Gabriel H., Los Angeles, CA, UNITED STATES

20030213

A1

AN

ΤI

ΤN

PΑ

PΙ

2003:44768 USPATFULL

degenerations

US 2003032078

```
Utility
FS
       APPLICATION
       Gina N. Shishima, Fulbright & Jaworski L.L.P., Suite 2400, 600 Congress
LREP
       Avenue, Austin, TX, 78701
CLMN
       Number of Claims: 53
ECL
       Exemplary Claim: 1
DRWN
       7 Drawing Page(s)
LN.CNT 7372
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention is a method for screening and identifying
AB
       therapeutic agents for the treatment of macular or retinal degeneration.
       The candidate substances preferably reduces the activity of
       11-cis-retinol dehydrogenase. In vitro and in vivo studies administering
       the inhibitor molecules to abor knockout mice and analyzing for the
       inhibition of lipofuscin (A2E) accumulation are contemplated.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 28 OF 41 USPATFULL on STN
L6
       2003:38131 USPATFULL
AN
       Methods and compositions in breast cancer diagnosis and therapeutics
TΤ
       Fugua, Suzanne, Sugar Land, TX, UNITED STATES
TN
       O'Connell, Peter, Houston, TX, UNITED STATES Allred, D. Craig, Houston, TX, UNITED STATES
       Hopp, Torsten A., Pearland, TX, UNITED STATES
PΙ
       US 2003027778
                          A1
                                20030206
       US 6821732
                          B2
                                20041123
       US 2002-52092
ДΤ
                          A1
                               20020118 (10)
       US 2001-262990P
PRAI
                          20010119 (60)
       US 2001-304018P
                           20010709 (60)
DT
       Utility
FS
       APPLICATION
       FULBRIGHT & JAWORSKI, LLP, 1301 MCKINNEY, SUITE 5100, HOUSTON, TX,
LREP
       77010-3095
CLMN
       Number of Claims: 63
ECL
       Exemplary Claim: 1
DRWN
       9 Drawing Page(s)
LN.CNT 5013
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention is directed to compositions regarding a specific
       mutation in estrogen receptor alpha and their use as diagnostic markers
       in breast tissue, such as premalignant lesions, for the development of
       breast cancer. More specifically, cells of breast cancer whose nucleic
       acid comprises the estrogen receptor alpha mutation identify the breast
       cancer to be an invasive breast cancer.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L6
     ANSWER 29 OF 41 USPATFULL on STN
AN
       2003:268143 USPATFULL
TI
       Aldehyde reductase bidirectional promoter and its use
       Barski, Oleg A., Houston, TX, United States
       Aguilar-Cordova, Estuardo C., Newton, MA, United States
       Bohren, Kurt M., Pearland, TX, United States
       Gabbay, Kenneth H., Houston, TX, United States
       Baylor College of Medicine, Houston, TX, United States (U.S.
PA
       corporation)
PΙ
       US 6630324
                          B1
                                20031007
ΑI
       US 2000-626002
                                20000726 (9)
       US 1999-146266P
PRAI
                          19990729 (60)
DT
       Utility
FS
       GRANTED
EXNAM
       Primary Examiner: Ketter, James; Assistant Examiner: Gansheroff, Lisa
LREP
       Fulbright & Jaworski, L.L.P.
CLMN
       Number of Claims: 34
ECL
       Exemplary Claim: 1
```

20010619 (9)

20010123 (60)

A1

ΑI

PRAI

US 2001-885303

US 2001-263837P

```
LN.CNT 3246
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention relates to an aldehyde reductase bidirectional promoter
AB
       which promotes transcription of two different sequences linked
       in opposite orientations. Vectors containing said promoter and methods
       of using said promoter are described.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 30 OF 41 USPATFULL on STN
L6
       2003:228403 USPATFULL
AN
       Phosphate and thiophosphate protecting groups
ΤI
       Guzaev, Andrei P., Carlsbad, CA, United States
IN
       Manoharan, Muthiah, Carlsbad, CA, United States
PA
       ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S.
       corporation)
       US 6610837
                               20030826
ΡŤ
                          B1
       US 2000-526386
                               20000316 (9)
ΑI
       Continuation-in-part of Ser. No. US 1999-268797, filed on 16 Mar 1999,
RLI
       now patented, Pat. No. US 6121437
DT
       Utility
FS
       GRANTED
EXNAM
       Primary Examiner: Wilson, James O.; Assistant Examiner: Crane, Lawrence
LREP
       Woodcock Washburn LLP
CLMN
       Number of Claims: 56
       Exemplary Claim: 1
ECL
DRWN
       8 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 3085
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Novel P(III) bisamidite reagents as phosphorus protecting groups,
       nucleoside phosphoramidite intermediates, and synthetic processes for
       making the same are disclosed. Furthermore, oligomeric compounds are
       prepared through the protection of one or more internucleosidic
       phosphorus functionalities, preferably followed by oxidation and
       cleavage of the protecting groups to provide oligonucleotides.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 31 OF 41 USPATFULL on STN
L6
AN
       2003:142930 USPATFULL
TI
       Methods and compositions for aptamers against anthrax
       Vivekananda, Jeevalatha, San Antonio, TX, United States
IN
       Kiel, Johnathan L., Universal City, TX, United States
PA
       Conceptual MindWorks, Inc., San Antonio, TX, United States (U.S.
       corporation)
ΡI
       US 6569630
                               20030527
ΑI
       US 2001-978753
                               20011015 (9)
       Continuation-in-part of Ser. No. US 2001-909492, filed on 19 Jul 2001,
RLI
       now abandoned Continuation-in-part of Ser. No. US 2000-608706, filed on
       30 Jun 2000, now patented, Pat. No. US 6303316
       US 2001-291371P
                           20010515 (60)
PRAI
       US 2000-199620P
                           20000425 (60)
       US 1999-142301P
                           19990702 (60)
       Utility
DT
FS
       GRANTED
       Primary Examiner: Zitomer, Stephanie W.
EXNAM
       Nakashima, Richard A., Blakely, Sokoloff, Taylor & Zafman
LREP
CLMN
       Number of Claims: 13
ECL
       Exemplary Claim: 1
DRWN
       6 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 2700
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention concerns methods of preparing nucleic acid ligands
       against anthrax spores, compositions comprising anthrax specific nucleic
       acid ligands and methods of use of such ligands for detection and/or
       neutralization of anthrax spores.
```

12 Drawing Figure(s); 12 Drawing Page(s)

```
ANSWER 32 OF 41 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
AN
     2002-627484 [67]
                        WPIDS
DNC
    C2004-012754
     Nucleotide analogs for treating e.g. cancer, comprise ligands containing
     naturally occurring nucleobase or nucleobase binding
DC
     B04 B05 D16
    SEGEV, D
IN
     (BIRA) BIO-RAD LAB INC
PA
CYC
                    A2 20020808 (200267)* EN 148
PΙ
    WO 2002061110
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
            NL OA PT SD SE SL SZ TR TZ UG ZM ZW
         W: AE AG AL AM AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU DM DZ EC ES
            GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT
            LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
            SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
                   A1 20031009 (200367)
     US 2003191074
                     A2 20031126 (200380)
     EP 1363640
                                           EN
         R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
            RO SE SI TR
     AU 2002230058
                     A1 20020812 (200427)
     JP 2004537503
                    W 20041216 (200482)
                                               228
   WO 2002061110 A2 WO 2002-IL83 20020129; US 2003191074 A1 Provisional US
ADT
     2001-264308P 20010129, US 2002-57928 20020129; EP 1363640 A2 EP
     2002-711178 20020129, WO 2002-IL83 20020129; AU 2002230058 A1 AU
     2002-230058 20020129; JP 2004537503 W JP 2002-561045 20020129, WO
     2002-IL83 20020129
   EP 1363640 A2 Based on WO 2002061110; AU 2002230058 A1 Based on WO
     2002061110; JP 2004537503 W Based on WO 2002061110
PRAI US 2001-264308P
                          20010129; US 2002-57928
                                                         20020129
AN
    2002-627484 [67]
                        WPIDS
    WO 200261110 A UPAB: 20040505
AB
    NOVELTY - New nucleotide analogs (I) and their derived oligonucleotide
     analogs (A) comprise a backbone with several chiral
     carbon atoms and several ligands each bound to a chiral
     carbon atom with at least one pair of adjacent ligands, at least
     one pair of which directly linked to one another via a
     linker chain and each containing a group of a naturally occurring
    nucleobase or nucleobase binding groups.
          DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
          (1) preparation of (A);
          (2) sequence specific hybridization involving contacting a double
     stranded polynucleotide with (A) such that (A) binds in a sequence
```

- specific manner to one strand of the polynucleotide, thereby displacing the other strand;
- (3) sequence specific hybridization involving contacting a single stranded polynucleotide with (A) such that (A) binds in a sequence specific manner to the polynucleotide; and
- (4) modulating the expression of a gene in an organism involving administering (A) such that (A) binds in a sequence specific manner deoxyribonucleic acid (DNA) or ribonucleic acid (RNA) deriving from the gene. The modulation includes inhibiting transcription or replication of the gene or inhibiting translation of the RNA of the gene.

ACTIVITY - Virucide; Cytostatic; Dermatological; Anti-HIV; Antifungal; Antiinflammatory; Ophthalmological; Cardiovascular-Gen.; Antipsoriatic; Antiasthmatic; Cardiant; Nephrotropic; Gastrointestinal-Gen.; Osteopathic; Antiarthritic; Antirheumatic; Antibacterial; Immunosuppressive; Antipyretic.

No suitable data given.

MECHANISM OF ACTION - Gene Expression Modulator.

USE - (I) Are useful for modulating the expression of a gene in an organism, for treating conditions associated with undesired protein production in an organism, for inducing degradation of DNA or RNA in cells of an organism and for killing cells or viruses (claimed). (I) Are also

useful in research, diagnosis and medical applications e.g. for antisense therapy and for treating labial, ocular and cervical cancer; genital warts; Kaposi's sarcoma; common warts; skin and systemic fungal infections; autoimmunedeficiency syndrome (AIDS); pneumonia; flu; mononucleosis; rhinitis and pneumonitis in immunosuppressed patients; ocular, skin and systemic inflammation; cardiovascular disease; psoriasis; asthma; cardiac infarction; cardiovascular collapse; kidney disease; gastrointestinal disease; osteoarthritis; rheumatoid arthritis; septic shock; acute pancreatitis; and Crohn's disease.

ADVANTAGE - (A) Has the following advantages:

(i) ease of synthetic procedure and proven synthetic efficiency; and (ii) a rigidity compatible with the structure of natural nucleic acids having the properties of specificity in binding to target sequences, solubility in water, stability against intra- and extracellular nucleases, capability of penetrating through cell membranes and low toxicity properties which make (A) suitable as an antisense therapeutic drug. Dwg.0/10

```
L6
    ANSWER 33 OF 41 USPATFULL on STN
AN
       2002:329426 USPATFULL
       Polymer combinations that result in stabilized aerosols for
TI
       gene delivery to the lungs
IN
       Zou, Yiyu, Bronx, NY, UNITED STATES
       Perez-Soler, Roman, New York, NY, UNITED STATES
                       A1
ΡI
       US 2002187105
                               20021212
                        A1
ΑI
       US 2002-61444
                               20020201 (10)
PRAI
       US 2001-266174P
                         20010201 (60)
       Utility
DT
       APPLICATION
FS
       FULBRIGHT & JAWORSKI L.L.P., A REGISTERED LIMITED LIABILITY PARTNERSHIP,
LREP
       SUITE 2400, 600 CONGRESS AVENUE, AUSTIN, TX, 78701
       Number of Claims: 126
CLMN
ECL
       Exemplary Claim: 1
DRWN
       8 Drawing Page(s)
LN.CNT 5666
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

The use of non-viral delivery of therapeutically effective compositions through aerosol for therapy or research purpose has been limited by the low efficiency mainly caused by an inefficient delivery system and destruction of formulation (gene and/or delivery system) by aerosol shearing power. This invention develops formulations that are established polymer combination formulations. The formulations are highly efficient in delivering genes in vivo through aerosol and are able to protect the delivered gene from the destruction by aerosol shearing power.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 34 OF 41 USPATFULL on STN
L6
       2002:294693 USPATFULL
AN
TI
       Ginkgo biloba levopimaradiene synthase
       Matsuda, Seiichi P.T., Houston, TX, UNITED STATES
IN
       Schepmann, Hala G., Talent, OR, UNITED STATES
PΙ
                               20021107
       US 2002164736
                         A1
       US 2002-41007
                               20020107 (10)
ΑI
                          A1
       US 2001-259881P
                          20010105 (60)
PRAI
DT
       Utility
FS
       APPLICATION
       FULBRIGHT & JAWORSKI, LLP, 1301 MCKINNEY, SUITE 5100, HOUSTON, TX,
LREP
       77010-3095
CLMN
       Number of Claims: 67
ECL
       Exemplary Claim: 1
DRWN
       4 Drawing Page(s)
LN.CNT 3353
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

AB. The present invention is directed to nucleic acid sequences of Ginkgo biloba diterpene synthases, particularly of a levopimaradiene synthase. More specifically, the invention is directed to a cell of a unicellular

organism, such as Saccharomyces cerevisiae or Escherichia coli, comprising levopimaradiene synthase for the metabolically engineered in vivo biosynthesis of a diterpene and a ginkgolide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 35 OF 41 USPATFULL on STN
L6
AN
       2002:272939 USPATFULL
ΤI
       PEI: DNA vector formulations for in vitro and in vivo gene delivery
       Cristiano, Richard J., Pearland, TX, UNITED STATES
IN
       Yamashita, Motoyuki, Kochi City, JAPAN
       Board of Regents, The University of Texas System (U.S. corporation)
PA
PΙ
      US 2002151060
                        A1
                              20021017
                         B2
      US 6846809
                              20050125
      US 2001-962922
ΑI
                        A1
                              20010925 (9)
PRAI
      US 2000-235237P
                         20000925 (60)
      US 2000-235635P
                         20000926 (60)
DT
      Utility
FS
      APPLICATION
      FULBRIGHT & JAWORSKI L.L.P., A REGISTERED LIMITED LIABILITY PARTNERSHIP,
LREP
      SUITE 2400, 600 CONGRESS AVENUE, AUSTIN, TX, 78701
      Number of Claims: 141
CLMN
      Exemplary Claim: 1
ECL
      31 Drawing Page(s)
DRWN
LN.CNT 7002
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates generally to the fields of nucleic acid transfection. More particularly, it concerns novel polycation:nucleic acid compositions, methods of preparation of such compositions and methods of transfecting cells with such compositions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L6
     ANSWER 36 OF 41 USPATFULL on STN
       2002:221787 USPATFULL
ΑN
ΤI
       Canl and its role in mammalian infertility
IN .
       Bishop, Colin E., Houston, TX, UNITED STATES
       Agoulnik, Alexander I., Houston, TX, UNITED STATES
       Zhu, Qichao, Houston, TX, UNITED STATES
PΙ
       US 2002119929
                       A1
                             20020829
       US 2001-3806
ΑI
                          A1
                               20011102 (10)
PRAI
       US 2000-245872P
                           20001103 (60)
DT
       Utility
FS
       APPLICATION
LREP
       FULBRIGHT & JAWORSKI, LLP, 1301 MCKINNEY, SUITE 5100, HOUSTON, TX,
       77010-3095
       Number of Claims: 50
CLMN
ECL
       Exemplary Claim: 1
DRWN
       18 Drawing Page(s)
LN.CNT 2768
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention is directed to a Canl mammalian sequence. Defects
       in this sequence result in aberrant migration and/or proliferation of
       primordial germ cells during embryonic development, leading to Sertoli
       Cell Only syndrome in males and Premature Ovarian Failure in females.
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 37 OF 41 USPATFULL on STN
1.6
AN
       2002:231094 USPATFULL
TI
       Atropisomers of asymmetric xanthene fluorescent dyes and methods of DNA
       sequencing and fragment analysis
IN
       Lee, Linda G., Palo Alto, CA, United States
       Taing, Meng C., San Mateo, CA, United States
       Rosenblum, Barnett B., San Jose, CA, United States
       PE Corporation (NY), Foster City, CA, United States (U.S. corporation)
PA
PΙ
      US 6448407
                          B1
                               20020910
ΑI
      US 2000-704966
                               20001101 (9)
```

```
Primary Examiner: Davis, Zinna Northington
EXNAM
LREP
       Andrus, Alex
CLMN
       Number of Claims: 57
       Exemplary Claim: 1
ECL
       21 Drawing Figure(s); 21 Drawing Page(s)
DRWN
LN.CNT 2083
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Substantially pure atropisomers of xanthene compounds are disclosed. A
       variety of molecular biology applications utilize atropisomeric xanthene
       fluorescent dyes as labels for substrates such as nucleotides,
       nucleosides, polynucleotides, polypeptides and carbohydrates. Methods
       include DNA sequencing, DNA fragment analysis, PCR, SNP analysis,
       oligonucleotide ligation, amplification, minisequencing, and primer
       extension.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 38 OF 41 USPATFULL on STN
L6
AN
       2002:34543 USPATFULL
       Poly(ether-thioether), poly(ether-sulfoxide) and
TI
       poly(ether-sulfone) nucleic acids
IN
       Segev, David, Mazkeret Batya, ISRAEL
       Bio-Rad Laboratories, Inc., Hercules, CA, United States (U.S.
PΑ
       corporation)
PΙ
       US 6348583
                          В1
                               20020219
       US 1999-411862
                               19991004 (9)
ΑI
       Continuation-in-part of Ser. No. US 1999-384995, filed on 20 Aug 1999,
RLI
       now abandoned
DT
       Utility
       GRANTED
FS
EXNAM
      Primary Examiner: Riley, Jezia
       Number of Claims: 11
CLMN
ECL
       Exemplary Claim: 1
DRWN
       11 Drawing Figure(s); 10 Drawing Page(s)
LN.CNT 1860
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       A compound comprising a poly(ether-thioether), poly(ether-
       sulfoxide) or poly(ether-sulfone)
       backbone bearing a plurality of ligands that are individually
       bound to chiral carbon atoms located within the
       backbone, at least one of the ligands including a moiety such as
       a naturally occurring nucleobase, a nucleobase
       binding group or a DNA interchelator; a process of synthesizing the
       compound, monomers to be used in this process and their synthesis
       process and processes for using the compound in biochemistry and
       medicine.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 39 OF 41 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
L6
     2001-265893 [27]
AΝ
                        WPIDS
DNC C2001-080452
     Chiral compound with poly(ether-thioether) backbone, useful as
ΤI
     oligonucleotide analogs for e.g. therapeutic modulation of gene
     expression, hybridize with high sequence-specificity.
DC
     A25 A96 B04 D16
IN
     SEGEV, D
PA
     (BIRA) BIO-RAD LAB INC
CYC
     95
PΤ
     WO 2001016365
                    A1 20010308 (200127)* EN 119
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
            NL OA PT SD SE SL SZ TZ UG ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
            DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
            LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
            SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
```

DT

FS

Utility

GRANTED

AU 2000060126 A 20010326 (200137) US 6348583 B1 20020219 (200221) EP 1208234 A1 20020529 (200243) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

JP 2003508062 W 20030304 (200319) 111

AU 769619 B 20040129 (200412)

ADT WO 2001016365 A1 WO 2000-IL432 20000721; AU 2000060126 A AU 2000-60126 20000721; US 6348583 B1 CIP of US 1999-384995 19990820, US 1999-411862 19991004; EP 1208234 A1 EP 2000-946256 20000721, WO 2000-IL432 20000721; JP 2003508062 W WO 2000-IL432 20000721, JP 2001-520910 20000721; AU 769619 B AU 2000-60126 20000721

FDT AU 2000060126 A Based on WO 2001016365; EP 1208234 A1 Based on WO 2001016365; JP 2003508062 W Based on WO 2001016365; AU 769619 B Previous Publ. AU 2000060126, Based on WO 2001016365

PRAI US 1999-411862 19991004; US 1999-384995 19990830

AN 2001-265893 [27] WPIDS

AB WO 200116365 A UPAB: 20010518

NOVELTY - Compound (I) comprises a poly(ether-thioether/sulfone/sulfoxide) backbone that has many chiral carbon atoms and many ligands (II) individually linked to the chiral atoms. (II) include a naturally occurring nucleobase (NB) or an NB-binding group.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

- (a) intermediate compounds of formula (III);
- (b) method for producing (I);
- (c) sequence-specific hybridization process involving treatment of double-stranded nucleic acid with (I) so that (I) binds to one strand, causing displacement of the other strand;
- (d) sequence-specific hybridization of (I) to a single-stranded nucleic acid; and
- (e) pharmaceutical composition containing (I) as active ingredient, plus at least one of carrier, binder, thickener, diluent, buffer, preservative or surfactant.
 - B' = nucleobase or nucleobase-binding group;

X and Y = linkers;

Z = protecting group;

A = leaving group.

ACTIVITY - Antiviral; anti-inflammatory; antifungal; cytostatic; antipsoriatic; antibacterial; immunosuppressive; dermatological; fungicidal; anti-HIV; ophthalmological; antiasthmatic; cardiant; nephrotropic; gastrointestinal-gen.; osteopathic; antiarthritic; antirheumatic. No tests for the activity of (I) are given.

MECHANISM OF ACTION - Sequence-specific hybridization with DNA or RNA, in the same way as antisense oligonucleotides, also inhibition of nucleic acid degradation.

USE - (I) are used to form sequence-specific hybrids with single-stranded or double-stranded nucleic acid (in the second case, causing displacement of one strand), particularly for modulating (inhibiting or activating) gene expression in vivo, by affecting transcription, translation or replication of the gene. They are used for treatment or prevention of essentially any disease where abnormal gene expression is involved, e.g. infections by viruses (including immune deficiency virus) or Candida albicans, cancer, inflammation, cardiovascular disorders, psoriasis, septic shock, warts, Kaposi's sarcoma, skin and systemic fungal infections, AIDS, pneumonia, flu, mononucleosis, retinitis and pneumonitis in immunosuppressed patients, asthma, cardiac infraction, kidney disease, gastrointestinal disease, osteoarthritis, rheumatoid arthritis, acute pancreatitis, Crohn's disease.

ADVANTAGE - (I) form hybrids with nucleic acid that are more stable than those formed with complementary DNA but not as stable as those formed with peptide nucleic acid. They are water soluble; stable against intraor extra-cellular nucleases; can pass through cell walls; have low toxicity, and can be synthesized easily and efficiently. Dwg.0/10

```
TI
      · Organic semiconductor recognition complex and system
IN
       Kiel, Johnathan L., Universal City, TX, United States
       Bruno, John G., San Antonio, TX, United States
       Parker, Jill E., Floresville, TX, United States
       Alls, John L., San Antonio, TX, United States
       Batishko, Charles R., Richland, WA, United States
       Holwitt, Eric A., San Antonio, TX, United States
       Conceptual Mind Works, Inc., San Antonio, TX, United States (U.S.
PΑ
       corporation)
PΙ
       US 6303316
                          B1
                               20011016
       US 2000-608706
                               20000630 (9)
AΤ
                           19990702 (60)
       US 1999-142301P
PRAI
       US 2000-199620P
                           20000425 (60)
DT
       Utility
FS
       GRANTED
EXNAM
       Primary Examiner: Horlick, Kenneth R.
LREP
       Blakely, Sokoloff, Taylor & Zafman
CLMN
       Number of Claims: 62
ECL
       Exemplary Claim: 1
DRWN
       31 Drawing Figure(s); 15 Drawing Page(s)
LN.CNT 3322
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       In a recognition complex system, nucleic acid ligands comprising random
AB
```

DNA sequences are operatively coupled to an organic semiconductor and distributed so as to form an array of recognition complexes. When an unknown chemical or biological analyte is applied to the array, the electrical and/or photochemical properties of one or more of the recognition complexes are altered upon binding of the nucleic acid ligand to the analyte. The degree to which the electrical and/or photochemical properties change is a function of the affinity of the nucleic acid ligand sequence for the analyte. The electrical and photochemical changes associated with the array, as a whole, can be used as a unique signature to identify the analyte. In certain embodiments, an iterative process of selection and amplification of nucleic acid ligands that bind to the analyte can be used to generate a new array with greater affinity and specificity for a target analyte, or to produce one or more nucleic acid ligands with high binding affinity for an analyte. The present invention also provides methods for preparing nucleic acid ligands that bind with high affinity to an analyte and using such nucleic acid ligands to neutralize the analyte.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L6
     ANSWER 41 OF 41 USPATFULL on STN
AN
       1999:63318 USPATFULL
TI
       Polyether nucleic acids
IN
       Segev, David, 10 Hagoren, 76804 Mazkeret Batya, Israel
       US 5908845
PΙ
                           19990601
ΑI
       US 1996-740516
                               19961030 (8)
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Wilson, James O.
LREP
       Friedman, Mark M.
       Number of Claims: 17
CLMN
ECL
       Exemplary Claim: 1,14.
DRWN
       5 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1394
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
       A compound comprising a polyether backbone bearing a
       plurality of ligands that are individually bound to chiral
       carbon atoms located within said backbone, at least
       one of said ligands including a moiety selected from the group
       consisting of a naturally occurring nucleobase, a
       nucleobase binding group and a DNA intercalator; a process of
       synthesizing the compound, monomers to be used in this process and their
       synthesis process and processes for using the compound in biochemistry
       and medicine.
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

=> file reg; d stat que 126; d stat que 129 FILE 'REGISTRY' ENTERED AT 11:23:26 ON 28 JUL 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 American Chemical Society (ACS)

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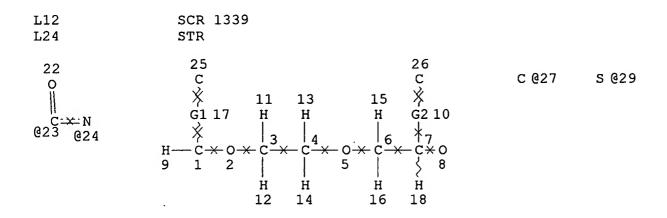
STRUCTURE FILE UPDATES: 27 JUL 2004 HIGHEST RN 717822-84-9 DICTIONARY FILE UPDATES: 27 JUL 2004 HIGHEST RN 717822-84-9

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html



O @30 P @31 Se @32 N @28

VAR G1=27/28/29/30/31/23-1 24-25/32 VAR G2=27/28/29/30/31/23-7 24-26/32 NODE ATTRIBUTES:

AT

29

NSPEC . IS RC AT IS RC NSPEC AΤ IS RC NSPEC AΤ NSPEC IS RC AT NSPEC IS RC AT 5 NSPEC IS RC 6 AT IS RC 7 NSPEC AT IS RC ΑT NSPEC 8 IS RC AT23 NSPEC NSPEC IS RC AT 24 IS RC NSPEC ΑT 27 IS RC NSPEC AT 28

IS RC

NSPEC

Note: This phracture encomposses, where the components are part of a ring.

NSPEC IS RC AT 30 **NSPEC** IS RC AT 31 IS RC AT 32 NSPEC CONNECT IS E3 RC AT 1 CONNECT IS E3 RC AT DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 29

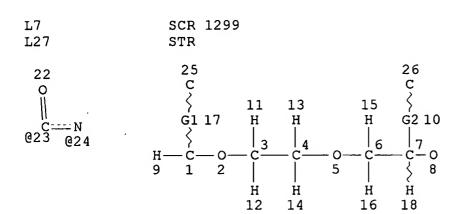
STEREO ATTRIBUTES: NONE

L26 39 SEA FILE=REGISTRY SSS FUL L24 AND L12

100.0% PROCESSED 339007 ITERATIONS

SEARCH TIME: 00.00.02

39 ANSWERS



C @27 S @29

Note: This phacture components are in chain formation.

O @30 P @31 Se @32 N @28

VAR G1=27/28/29/30/31/23-1 24-25/32 VAR G2=27/28/29/30/31/23-7 24-26/32 NODE ATTRIBUTES: CONNECT IS E3 RC AT 1 CONNECT IS E3 RC AT 7 DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE

L29 12 SEA FILE=REGISTRY SSS FUL L27 AND L7

100.0% PROCESSED 111676 ITERATIONS

SEARCH TIME: 00.00.01

12 ANSWERS

=> file caplus; d que nos 130 FILE 'CAPLUS' ENTERED AT 11:23:48 ON 28 JUL 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 28 Jul 2004 VOL 141 ISS 5 FILE LAST UPDATED: 27 Jul 2004 (20040727/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L7 SCR 1299
L12 SCR 1339
L24 STR
L26 39 SEA FILE=REGISTRY SSS FUL L24 AND L12
L27 STR
L29 12 SEA FILE=REGISTRY SSS FUL L27 AND L7
L30 12 SEA FILE=CAPLUS ABB=ON PLU=ON L26 OR L29
```

=> d ibib ed ab hitstr 130 1-12

L30 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:975726 CAPLUS

DOCUMENT NUMBER: 140:146356

TITLE: Synthesis of macrocyclic derivatives containing a

sucrose unit

AUTHOR(S): Jarosz, Slawomir; Listkowski, Arkadiusz

CORPORATE SOURCE: Institute of Organic Chemistry, Polish Academy of

Sciences, Warsaw, Pol.

SOURCE: Journal of Carbohydrate Chemistry (2003), 22(7 & 8),

753-763

CODEN: JCACDM; ISSN: 0732-8303

PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal LANGUAGE: English ED Entered STN: 15 Dec 2003

AB An efficient synthesis of 1',2,3,3',4,4'-hexa-O-benzylsucrose (48% from sucrose) is presented. This diol was used for the preparation of crown ether-type analogs of various size macrocyclic rings with incorporated sucrose units.

IT 652990-17-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of crown ether-type analogs incorporating sucrose units)

RN 652990-17-5 CAPLUS

CN α-D-Glucopyranoside, 1,3,4-tris-O-(phenylmethyl)-β-D-fructofuranosyl 6,6'-O-[[1,2:5,6-bis-O-(1-methylethylidene)-D-mannitol-3,4-di-O-yl]di-2,1-ethanediyl]-2,3,4-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

IT 652990-26-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of crown ether-type analogs incorporating sucrose units)

RN 652990-26-6 CAPLUS

CN α -D-Glucopyranoside, 1,3,4-tri-O-acetyl- β -D-fructofuranosyl

6,6'-O-[[1,2:5,6-bis-O-(1-methylethylidene)-D-mannitol-3,4-di-O-yl]di-2,1-ethanediyl]-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:487446 CAPLUS

DOCUMENT NUMBER: 139:175719

Glycosyltransferase activity can be modulated by small TITLE:

conformational changes of acceptor substrates

Galan, M. Carmen; Venot, Andre P.; Boons, Geert-Jan AUTHOR(S):

CORPORATE SOURCE: Complex Carbohydrate Research Center, University of

Georgia, Athens, GA, 30602, USA Biochemistry (2003), 42(28), 8522-8529 SOURCE:

CODEN: BICHAW; ISSN: 0006-2960

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal English LANGUAGE: Entered STN: 27 Jun 2003

A range of N-acetyllactosamine derivs. (compds. 4-7) that have restricted AB mobilities around their glycosidic linkages have been employed to determine how small changes in conformational properties of an oligosaccharide acceptor affect catalytic efficiencies of glycosylations by $\alpha-2,6-$ and α -2,3-sialyltransferases and α -1,3-fucosyltransferases IV and VI. Restriction of conformational mobility was achieved by introducing tethers of different length and chemical composition between the C-6 and C-2' hydroxyl of LacNAc. Compound 4 is a 2',6-anhydro derivative which is highly constrained and can adopt only two unusual conformations at the LacNAc glycosidic linkage. Compound 5 is modified by a methylene acetal tether and can exist in a larger range of conformations; however, the Φ dihedral angle is restricted to values smaller than 30°, which are not entirely similar to min. energy conformations of LacNAc. ethylene-tethered 6 can attain conformations in the relatively large energy plateau of LacNAc that include syn conformations A and B, whereas compound 7, which is modified by a methylamide tether, can only reside in the B-conformer. 2',6-Dimethoxy derivative 2 was employed to determine the

effect

of alkylation of the C-6 and C-2' hydroxyls of 5 and 6, whereas 3 was used to reveal the effects of the C-6 amide and C-2' alkylation of 7. The apparent kinetic parameters of transfer to the conformationally constrained 4-7 and reference compds. 1-3 catalyzed by $\alpha\text{--}2,6\text{--}$ and $\alpha\text{--}2,3\text{--sialyltransferases}$ and $\alpha\text{--}1,3\text{--fucosyltransferases}$ IV and VI were determined, and the results correlated with their conformational properties. The data for 4-6 showed that each enzyme recognizes N-acetyllactosamine in a low min. energy conformation. A small change in conformational properties such as in compound 5 resulted in a significant loss of catalytic activity. Larger conformational changes such as in compound 4 abolished all activity of the sialyltransferases, whereas the fucosyltransferases showed some activity, albeit very low. The kinetic data for compds. 4 and 5 demonstrate clearly that different glycosyltransferases respond differently to conformational changes, and the fucosyltransferases lost less activity than the sialyltransferases. Correlating apparent kinetic parameters of conformationally constrained 6 and 7 and their reference compds. 2 and 3 further supports the fact that different enzymes respond differently and indicates that sialyltransferases and fucosyltransferases recognize N-acetyllactosamine in a different conformation. Collectively, the data presented here indicate that small conformational changes of an oligosaccharide acceptor induced by, for example, the protein structure can be employed to modulate the patterns of protein glycosylation.

IT 440345-37-9

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(acceptor substrate; small conformational changes of

acetyllactosamine-based acceptor substrates in relation to recognition

by sialyltransferases and fucosyltransferases)

440345-37-9 CAPLUS RN

β-D-Glucopyranoside, methyl 2-(acetylamino)-2-deoxy-2',6-0-1,2-CN ethanediyl-4-O- β -D-galactopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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CAPLUS COPYRIGHT 2004 ACS on STN L30 ANSWER 3 OF 12

ACCESSION NUMBER:

2002:595034 CAPLUS

DOCUMENT NUMBER:

137:151580

TITLE:

Oligonucleotide analogs containing linked bases, methods for their synthesis, and their use in

modulating gene expression and treatment of diseases

INVENTOR(S):

Segev, David

PATENT ASSIGNEE(S):

Bio-Rad Laboratories, Inc., USA

SOURCE:

PCT Int. Appl., 148 pp.

DOCUMENT TYPE:

CODEN: PIXXD2

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	rent :	NO.		KIND		DATE			APPLICATION NO.					DATE			
				A2 A3		20020808 20030206			WO 2002-IL83 20020129								
WO	WO 2002061110			C1 20031120													
	W:	AE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
														GB,			
														KZ,			
		-												NO,			
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW,	AM,	AZ,	BY,	KG,	ΚZ,	MD,	RU,
		TJ,		,	·	Α		•	•		•	•					
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	CH,

20020129

CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2003191074 A1 20031009 US 2002-57928 20020129 EP 1363640 A2 20031126 EP 2002-711178 20020129 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR PRIORITY APPLN. INFO.: US 2001-264308P Ρ 20010129

WO 2002-IL83

OTHER SOURCE(S): MARPAT 137:151580

ED Entered STN: 09 Aug 2002

Nucleic acid and oligonucleotide analogs containing nucleobases attached to chiral carbons in the backbone and containing ≥1 paris of adjacent nucleobases covalently linked together are disclosed. The backbone may be a polyether, e.g., PEG, or polyether derivs. such as poly(ether—thioether), poly(ether—sulfone), and poly(ether—sulfoxide). Linked dimer building blocks and methods for their synthesis as well as methods for solution or solid phase synthesis of the oligo—and polynucleotide analogs are disclosed. The analogs may be used to modulate gene expression and to treat diseases. Thus, the solution phase and solid phase synthesis of PEG—linked oligo—T was demonstrated. The synthesis of a thymidine—linked thymidine dimer with PEG backbone was also shown.

IT 445377-48-0P 445377-54-8DP, conjugates with Wang resin 445377-56-0P 445377-58-2P 445377-60-6P 445377-62-8P 445377-73-1P 445377-74-2P 445377-75-3P 445377-76-4P 445377-77-5P

445377-80-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(oligonucleotide analogs containing linked bases, methods for their synthesis, and their use in modulating gene expression and treatment of diseases)

RN 445377-48-0 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(3S,9S)-9-[2-[3,4-dihydro-5-methyl-2,4-dioxo-3-[(phenylmethoxy)methyl]-1(2H)-pyrimidinyl]ethyl]-14-phenyl-3-[(triphenylmethoxy)methyl]-4,7,10,13-tetraoxatetradec-1-yl]-5-methyl-3-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

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RN 445377-54-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1,1'-[(3S,9S,15S)-3-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-9-[2-[3,4-dihydro-5-methyl-2,4-dioxo-3-[(phenylmethoxy)methyl]-1(2H)-pyrimidinyl]ethyl]-15-(2-hydroxyethoxy)-4,7,10,13-tetraoxaheptadecane-1,17-diyl]bis[5-methyl-3-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

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RN 445377-56-0 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(3S,9S)-3-(aminomethyl)-9-[2-[3,4-dihydro-5-methyl-2,4-dioxo-3-[(phenylmethoxy)methyl]-1(2H)-pyrimidinyl]ethyl]-14-phenyl-4,7,10,13-tetraoxatetradec-1-yl]-5-methyl-3-[(phenylmethoxy)methyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

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RN 445377-58-2 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(3S)-4-amino-3-[2-[(2S)-4-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2-(2-hydroxyethoxy)butoxy]ethoxy]butyl

]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

RN 445377-60-6 CAPLUS

CN 5,8,11-Trioxa-2-azatridecanethioamide, 4,10-bis[2-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)ethyl]-N-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)-13-hydroxy-, (4S,10S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

RN 445377-62-8 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, 5-[[(4S,10S)-4,10-bis[2-[3-(2,2-dimethyl-1-oxopropyl)-3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl]ethyl]-16,16-dimethyl-15-oxo-1-thioxo-5,8,11,14-tetraoxa-2-azaheptadec-1-yl]amino]-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthene]-3',6'-diyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

RN 445377-73-1 CAPLUS

CN 4-Pentenoic acid, 5-[1,2-dihydro-4-methoxy-1-[(3S,9S)-9-[2-[(4-methoxyphenyl)methoxy]ethyl]-15,15-dimethyl-14-oxo-3[(triphenylmethoxy)methyl]-4,7,10,13-tetraoxahexadec-1-yl]-2-oxo-5pyrimidinyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

PAGE 1-B

RN 445377-74-2 CAPLUS

CN 4-Pentenoic acid, 5-[1,2-dihydro-1-[(3S,9S)-9-(2-hydroxyethyl)-15,15-dimethyl-14-oxo-3-[(triphenylmethoxy)methyl]-4,7,10,13-tetraoxahexadec-1-yl]-4-methoxy-2-oxo-5-pyrimidinyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

RN 445377-75-3 CAPLUS

CN 4-Pentenoic acid, 5-[1-[(3S)-3-[2-[(2S)-4-[5-(4-amino-1-butenyl)-4-methoxy-2-oxo-1(2H)-pyrimidinyl]-2-(2-hydroxyethoxy)butoxy]ethoxy]-4-(triphenylmethoxy)butyl]-1,2-dihydro-4-methoxy-2-oxo-5-pyrimidinyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

PAGE 1-B

RN 445377-76-4 CAPLUS

CN 20,23-Dioxa-6,14,16,28,30-pentaazatricyclo[26.3.1.112,16]tritriaconta-1(32),2,10,12(33),13,30-hexaene-7,15,29-trione, 25-(2-hydroxyethoxy)-13,31dimethoxy-19-[(triphenylmethoxy)methyl]-, (19S,25S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

RN 445377-77-5 CAPLUS

CN 20,23-Dioxa-6,14,16,28,30-pentaazatricyclo[26.3.1.112,16]tritriaconta-1(32),2,10,12(33),13,30-hexaene-7,15,29-trione, 13,31-dimethoxy-25-[2-[(methylsulfonyl)oxy]ethoxy]-19-[(triphenylmethoxy)methyl]-, (19S,25S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry unknown.

RN 445377-80-0 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(3S)-3-[2-[(2S)-4-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2-(2-hydroxyethoxy)butoxy]ethoxy]-4-hydroxybutyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L30 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:332738 CAPLUS

DOCUMENT NUMBER: 137:75139

AUTHOR(S):

TITLE: $\alpha-(2,6)$ -Sialyltransferase-catalyzed sialylations

of conformationally constrained oligosaccharides Galan, M. Carmen; Venot, Andre P.; Glushka, John;

Imberty, Anne; Boons, Geert-Jan

CORPORATE SOURCE: Complex Carbohydrate Research Center, University of

Georgia, Athens, GA, 30602, USA

SOURCE: Journal of the American Chemical Society (2002),

124(21), 5964-5973

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:75139

ED Entered STN: 05 May 2002

AB It is demonstrated that conformationally restricted oligosaccharides can act as acceptors for glycosyltransferases. Correlation of the

conformational properties of N-acetyl lactosamine (Gal β (1-4)GlcNAc, LacNAc) and several preorganized derivs. with the corresponding apparent kinetic parameters of rat liver α -(2,6)-sialyltransferase-catalyzed sialylations revealed that this enzyme recognizes LacNAc in a low energy conformation. Furthermore, small variations in the conformational properties of the acceptors resulted in large differences in catalytic efficiency. Collectively, the authors' data suggest that preorganization of acceptors in conformations that are favorable for recognition by a transferase may improve catalytic efficiencies.

440345-46-0P

IT

CN

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of conformationally constrained acetyllactosamine analogs and sialylation by $\alpha-(2,6)$ -sialyltransferase)

RN 440345-46-0 CAPLUS

 β -D-Glucopyranoside, methyl 2-(acetylamino)-2-deoxy-2',6-O-1,2-ethanediyl-3-O-(phenylmethyl)-4-O-[3,4,6-tris-O-(phenylmethyl)- β -D-galactopyranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 440345-37-9P

RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(product/conformationally constrained analog; preparation of conformationally constrained acetyllactosamine analogs and sialylation by α -(2,6)-sialyltransferase)

RN 440345-37-9 CAPLUS

CN β -D-Glucopyranoside, methyl 2-(acetylamino)-2-deoxy-2',6-0-1,2-ethanediyl-4-0- β -D-galactopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:796315 CAPLUS

DOCUMENT NUMBER: 130:125306

TITLE: Synthesis of the Vibrio cholerae Ol Ogawa and Inaba

terminal disaccharides with dioxolane-type spacers and

their coupling to proteins

AUTHOR(S): Ariosa-Alvarez, Alina; Arencibia-Mohar, Adriana;

Madrazo-Alonso, Odalys; Garcia-Imia, Luis;

Sierra-Gonzalez, Gustavo; Verez-Bencomo, Vicente

CORPORATE SOURCE: Laboratory of Synthetic Antigens, Facultad de Quimica,

Universidad de La Habana, Ciudad Habana, 10400, Cuba

SOURCE: Journal of Carbohydrate Chemistry (1998), 17(9),

1307-1320

CODEN: JCACDM; ISSN: 0732-8303

PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal LANGUAGE: English ED Entered STN: 22 Dec 1998

The disaccharide, which corresponds to the terminal fragment of the Vibrio cholerae O1 LPS, was prepared starting from the corresponding trichloroacetimidate derivative of the monosaccharide in the presence of trimethylsilyl triflate. After selective reduction of the azido group, the reaction with 2,4-di-O-acetyl-3-deoxy-L-glycero-tetronic acid in the presence of EEDQ afforded the corresponding amides. The cleavage of dioxolane protecting group followed by careful deacetylation and coupling with Bovine Serum Albumin or Meningococcal Outer Membrane Protein in the presence of sodium cyanoborohydride gave the corresponding neoglycoconjugates.

IT 219838-60-5P 219838-63-8P 219838-65-0P 219838-68-3P 219838-70-7P 219838-72-9P

219838-74-1P 219838-75-2P 219838-76-3P

219838-77-4P 219838-78-5P 219838-79-6P

219838-80-9P 219838-85-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of Vibrio cholerae terminal disaccharides with dioxolane-type spacers and their coupling to proteins)

RN 219838-60-5 CAPLUS

CN α -D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl

4-azido-4,6-dideoxy-3-O-(phenylmethyl)-, 2-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 219838-63-8 CAPLUS

CN α -D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 4-azido-4,6-dideoxy-3-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 219838-65-0 CAPLUS

CN α -D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 4-azido-4,6-dideoxy-2-O-methyl-3-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 219838-68-3 CAPLUS

CN α -D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 2-O-[2-O-acetyl-4-azido-4,6-dideoxy-3-O-(phenylmethyl)- α -D-mannopyranosyl]-4-azido-4,6-dideoxy-3-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 219838-70-7 CAPLUS

CN α -D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 4-azido-2-O-[4-azido-4,6-dideoxy-2-O-methyl-3-O-(phenylmethyl)- α -D-mannopyranosyl]-4,6-dideoxy-3-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 219838-72-9 CAPLUS

CN α-D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 4-[[(2S)-2,4-bis(acetyloxy)-1-oxobutyl]amino]-4,6-dideoxy-3-0-(phenylmethyl)-, 2-acetate (9CI) (CA INDEX NAME)

RN 219838-74-1 CAPLUS

CN α -D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 4-[((2S)-2,4-bis(acetyloxy)-1-oxobutyl]amino]-4,6-dideoxy-2-O-methyl-3-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 219838-75-2 CAPLUS

CN α-D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl
2-O-[2-O-acetyl-4-[[(2S)-2,4-bis(acetyloxy)-1-oxobutyl]amino]-4,6-dideoxy3-O-(phenylmethyl)-α-D-mannopyranosyl]-4-[[(2S)-2,4-bis(acetyloxy)-1oxobutyl]amino]-4,6-dideoxy-3-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 219838-76-3 CAPLUS

CN α-D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl
4-[[(2S)-2,4-bis(acetyloxy)-1-oxobutyl]amino]-2-O-[4-[[(2S)-2,4-bis(acetyloxy)-1-oxobutyl]amino]-4,6-dideoxy-2-O-methyl-3-O-(phenylmethyl)-α-D-mannopyranosyl]-4,6-dideoxy-3-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 219838-77-4 CAPLUS

CN α -D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 4-[[(2S)-2,4-bis(acetyloxy)-1-oxobutyl]amino]-4,6-dideoxy-, 2,3-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 219838-78-5 CAPLUS

CN α-D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 4-[[(2S)-2,4-bis(acetyloxy)-1-oxobutyl]amino]-4,6-dideoxy-2-0-methyl-, 3-acetate (9CI) (CA INDEX NAME)

RN 219838-79-6 CAPLUS

CN α -D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 4-[[(2S)-2,4-bis(acetyloxy)-1-oxobutyl]amino]-4,6-dideoxy-2-0-[2,3-di-0-acetyl-4-[[(2S)-2,4-bis(acetyloxy)-1-oxobutyl]amino]-4,6-dideoxy- α -D-mannopyranosyl]-, 3-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 219838-80-9 CAPLUS

CN α-D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl
2-O-[3-O-acetyl-4-[[(2S)-2,4-bis(acetyloxy)-1-oxobutyl]amino]-4,6-dideoxy2-O-methyl-α-D-mannopyranosyl]-4-[[(2S)-2,4-bis(acetyloxy)-1oxobutyl]amino]-4,6-dideoxy-, 3-acetate (9CI) (CA INDEX NAME)

RN 219838-85-4 CAPLUS

 α -D-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl CN 4-amino-4,6-dideoxy-3-O-(phenylmethyl)-, 2-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

CAPLUS COPYRIGHT 2004 ACS on STN L30 ANSWER 6 OF 12

ACCESSION NUMBER:

1998:237097 CAPLUS

DOCUMENT NUMBER:

128:270796

TITLE:

Synthesis of human blood group A trisaccharide with a

dioxolane-type spacer

AUTHOR(S):

Alaez, C.; Campos, M. T.; Verez, V.

CORPORATE SOURCE:

Universidad de La Habana, Cuba

SOURCE:

Revista Cubana de Quimica (1997), 9(1), 11-16 CODEN: RCQUE7; ISSN: 0258-5995

PUBLISHER:

Universidad de Oriente

DOCUMENT TYPE:

Journal

LANGUAGE:

Spanish

Entered STN: 27 Apr 1998 ED

AB The trisaccharide 3-O-(2-deoxy-2-acetamido- α -D-galactopyranosyl)-2-O-(α -L-fucopyranosyl)- β -D-galactopyranoside was synthesized as a glycoside of a spacer which has a terminal aldehyde group protected as a dioxolane. The more significant features in this synthesis are the use of a central galactose derivative with the possibility of extension at either of the two positions. Furthermore, the trichloroacetimidate method was used for the establishment of the two α -glycosidic bonds. The trisaccharide was coupled with the proteins BSA and KLH for immunol. studies.

IT 169209-27-2P 205593-85-7P 205593-87-9P

205593-88-0P 205593-89-1P 205593-90-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of human blood group A trisaccharide with dioxolane-type spacer)

RN 169209-27-2 CAPLUS

CN β-D-Galactopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 4,6-bis-O-(phenylmethyl)-, 2-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 205593-85-7 CAPLUS

CN β-D-Galactopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 4,6-bis-O-(phenylmethyl)-3-O-2-propenyl-, acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 205593-87-9 CAPLUS

CN β-D-Galactopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 3-O-[2-azido-2-deoxy-3,4,6-tris-O-(phenylmethyl)-α-D-galactopyranosyl]-4,6-bis-O-(phenylmethyl)-, 2-acetate (9CI) (CA INDEX NAME)

RN 205593-88-0 CAPLUS

CN β -D-Galactopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 3-O-[2-azido-2-deoxy-3,4,6-tris-O-(phenylmethyl)- α -D-galactopyranosyl]-4,6-bis-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 205593-89-1 CAPLUS

CN β -D-Galactopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl O-2-azido-2-deoxy-3,4,6-tris-O-(phenylmethyl)- α -D-galactopyranosyl-(1 \rightarrow 3)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 2)]-4,6-bis-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 205593-90-4 CAPLUS

CN β -D-Galactopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 0-3,4,6-tri-O-acetyl-2-(acetylamino)-2-deoxy- α -D-galactopyranosyl-

 $(1\rightarrow 3)$ -O-[2,3,4-tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-

 $(1\rightarrow 2)$]-, 4,6-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:155387 CAPLUS

DOCUMENT NUMBER: 124:317660

TITLE: Synthesis of the trisaccharide α -L-Rha-(1-2)-

 α -L-Rha-(1-2)- α -L-Rha with a dioxolane-type spacer-arm

AUTHOR(S): Palomino, Julio C. Castro; Rensoli, Marylin Hernandez;

Bencomo, Vicente Verez

CORPORATE SOURCE:

Lab. Synthetic Antigens, Universidad de la Habana,

Ashen

Havana, 10400, Cuba

SOURCE:

ED

Journal of Carbohydrate Chemistry (1996), 15(2),

137-46

CODEN: JCACDM; ISSN: 0732-8303

PUBLISHER: DOCUMENT TYPE: Dekker Journal English

LANGUAGE: Entered STN: 16 Mar 1996

AB Rhamnose-containing trisaccharide I with a dioxolane-type spacer was obtained by using the trichloroacetamidate method in all of the glycosidation steps. After deprotection, the trisaccharide was coupled to BSA or KLH by reductive amination of the spacer aldehyde group.

IT 176168-83-5P 176168-84-6P 176168-86-8P 176168-87-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of trisaccharide with a dioxolane-type spacer-arm)

RN 176168-83-5 CAPLUS

 α -L-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl CN 6-deoxy-3,4-bis-O-(phenylmethyl)-, acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 176168-84-6 CAPLUS

CN α -L-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 6-deoxy-3,4-bis-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 176168-86-8 CAPLUS

CN α -L-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy) ethyl $O-2-O-acetyl-6-deoxy-3, 4-bis-O-(phenylmethyl)-\alpha-L-mannopyranosyl (1\rightarrow 2)-O-6-deoxy-3,4-bis-O-(phenylmethyl)-\alpha-L-mannopyranosyl (1\rightarrow 2)$ -6-deoxy-3,4-bis-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 176168-87-9 CAPLUS

CN α -L-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 0-2,3,4-tri-O-acetyl-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O-3,4-di-O-acetyl-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-6-deoxy-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

IT 176168-85-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (synthesis of trisaccharide with a dioxolane-type spacer-arm)

RN 176168-85-7 CAPLUS

CN α-L-Mannopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 2-0-[2-0-acetyl-6-deoxy-3,4-bis-0-(phenylmethyl)-α-L-mannopyranosyl]-6-deoxy-3,4-bis-0-(phenylmethyl)- (9CI) (CA INDEX NAME)

L30 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:776594 CAPLUS

DOCUMENT NUMBER: 123:253928

TITLE: Human blood group B trisaccharide. Synthesis,

characterization, and use in the generation and selection of monoclonal antibodies with a known

specificity

AUTHOR(S): Campos, Maria T.; Alaez, Carlos; Sarracent, Jorge;

Rodriguez, Juan C.; Herrera, Mario; Bencomo, Antonio;

Verez Bencomo, Vicente

CORPORATE SOURCE: Facultad de Quimica, Universidad de la Habana, Havana,

10400, Cuba

SOURCE: Biotecnologia Aplicada (1995), 12(1), 36-41

CODEN: BTAPEP; ISSN: 0864-4551

PUBLISHER: Sociedad Iberolatinoamericana de Biotecnologia

Aplicada a la Salud

DOCUMENT TYPE: Journal LANGUAGE: English ED Entered STN: 06 Sep 1995

AB The trisaccharide specific for human blood group B was obtained as a glycoside of 8-hydroxy-3,6-dioxaoctanal. A new galactose intermediate was developed for chain extension at 0-2 or 0-3 in either sequence. The use of trichloroacetimidates as glycosyl donors for the establishment of the two α -glycosidic linkages was also noteworthy. Human blood group B trisaccharide coupled to KLH was used to induce high anti-B titer in balb-c mice for the production of anti-B monoclonal antibodies. The hybridomas were selected by their reaction with the trisaccharide and by their specific agglutination of B erythrocytes. The monoclonal antibody LAGS-B-03 thus selected displayed excellent parameters as a blood-typing reagent.

IT 169209-27-2P 169209-28-3P 169209-29-4P

169209-30-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of in human blood group B trisaccharide preparation)

RN 169209-27-2 CAPLUS

CN β-D-Galactopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 4,6-bis-O-(phenylmethyl)-, 2-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 169209-28-3 CAPLUS

CN β -D-Galactopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl 4,6-bis-O-(phenylmethyl)-3-O-[2,3,4,6-tetrakis-O-(phenylmethyl)- α -D-galactopyranosyl]-, acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 169209-29-4 · CAPLUS

CN β -D-Galactopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl O-6-deoxy-2,3,4-tris-O-(phenylmethyl)- α -L-galactopyranosyl-(1 \rightarrow 2)-O-[2,3,4,6-tetrakis-O-(phenylmethyl)- α -D- galactopyranosyl-(1 \rightarrow 3)]-4,6-bis-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 169209-30-7 CAPLUS

CN β -D-Galactopyranoside, 2-(1,3-dioxolan-2-ylmethoxy)ethyl O-2,3,4,6-tetra-O-acetyl- α -D-galactopyranosyl- $(1\rightarrow 3)$ -O-[2,3,4tri-O-acetyl-6-deoxy- α -L-galactopyranosyl-(1 \rightarrow 2)]-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L30 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:497568 CAPLUS

DOCUMENT NUMBER: 121:97568

TITLE: Crown compound polymers and solid electrolytes

INVENTOR(S): Soejima, Hiroshi

PATENT ASSIGNEE(S): Mitsubishi Cable Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE PATENT NO. _____ _____ 19931214 JP 05331248 A2 JP 1992-164349 19920528 19920528 PRIORITY APPLN. INFO.: JP 1992-164349

Entered STN: 20 Aug 1994

The polymer is made from a crown ether compound containing polymerizing organic AB radical(s) and has a structure in which portions of polyether rings are arranged to a tunnel with the polymerized chains. The solid electrolyte is made of a mixture of the polymer with electrolyte(s) and an optional hydrogel.

IT 156446-22-9

RL: USES (Uses)

(polymers from, with tunnel structures, for solid electrolytes)

RN 156446-22-9 CAPLUS

Silane, triethyl[[8-(1-propynyl)-1,4,7,10-tetraoxacyclododec-2-yl]ethynyl]-CN(9CI) (CA INDEX NAME)

L30 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1990:98989 CAPLUS

DOCUMENT NUMBER:

112:98989

TITLE:

Preparation and mass-spectral analysis of

O-hydroxyethyl derivatives of D-glucose

AUTHOR(S):

Nagai, Katsuyuki; Honda, Atsuko; Kiho, Tadashi; Ukai,

Shigeo; Tsuchiya, Teruo

CORPORATE SOURCE:

Gifu Pharm. Univ., Gifu, 502, Japan

SOURCE:

Carbohydrate Research (1989), 190(2), 165-80

CODEN: CRBRAT; ISSN: 0008-6215

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 112:98989

Entered STN: 18 Mar 1990

Various hydroxyethyl ethers of D-glucose were prepared in good yield by AB treating D-glucose derivs. with 2-bromoethyl tetrahydropyranyl ether in the presence of sodium hydride. The derived O-(hydroxyethyl)-D-glucitol acetates exhibited characteristic mass-spectral fragments. The furanose and pyranose forms of 1,2-O-ethylene-D-glucose derived from

2-O-(2-hydroxyethyl)-D-glucose were identified by mass-spectral anal.

TT 125365-33-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation, spectra, and debenzylation of)

125365-33-5 CAPLUS RN

 α -D-Glucofuranose, 1,2-O-1,2-ethanediyl-3,5-bis-O-(phenylmethyl)-6-O-CN [2-[(tetrahydro-2H-pyran-2-yl)oxy]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L30 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1986:424250 CAPLUS

DOCUMENT NUMBER:

105:24250

TITLE:

Synthesis of chiral 18-crown-6 derivatives and

dibenzocrown ethers incorporating trans-

tetrahydrofuran-2,5-diylbis(methylene) units of known

absolute configuration

AUTHOR(S):

Naemura, Koichiro; Ebashi, Iwao; Matsuda, Atsushi Fac. Eng. Sci., Osaka Univ., Osaka, 560, Japan

SOURCE:

Bulletin of the Chemical Society of Japan (1985),

58(10), 3057-8

CODEN: BCSJA8; ISSN: 0009-2673

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CORPORATE SOURCE:

CASREACT 105:24250

ED Entered STN: 26 Jul 1986

AB THF derivative I was used as a chiral diethylene glycol unit for the synthesis of 18-crown-6 derivs. II, III, and IV and dibenzocrown ethers V (Z = CH2CH2, CH2CH2OCH2CH2). Thus, I was tosylated with tosyl chloride to give the o-mono- and O,O'-ditosylated derivs.; the ditosylated derivative was cyclized with tetraethylene glycol to give II. The abilities of the above crown ethers to extract alkali metal picrates were determined

IT 102775-01-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and hydrolysis of)

RN 102775-01-9 CAPLUS

CN L-threo-Hexitol, 2,5-anhydro-3,4-dideoxy-1,6-bis-O-[2-[(tetrahydro-2H-pyran-2-yl)oxy]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L30 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1969:87397 CAPLUS

DOCUMENT NUMBER:

70:87397

TITLE:

Reaction of 1,2-epoxyoctane and 2-dimethylaminoethanol

AUTHOR(S):

Tobler, Erich

CORPORATE SOURCE:

Res. and Develop. Dep., Union Carbide Corp, Chem., and

Plast., South Carleston, WV, USA

SOURCE:

Helvetica Chimica Acta (1969), 52(2), 408-18

Ashen

CODEN: HCACAV; ISSN: 0018-019X

DOCUMENT TYPE:

Journal German

LANGUAGE:

ED Entered STN: 12 May 1984

2-Dimethylamino-ethanol reacts with 1,2-epoxyoctane presumably via a AB H-bonded complex to form a quaternary ammonium compound which exhibits a fair stability at lower temps. At higher temps. the quaternary structure decompose with the resulting formation of a wide variety of products. Most of the products were identified and a mechanistic picture for their formation is presented. The main products of the reaction are $1-(\beta-dimethylaminoethoxy)-2-octanol$ (II) and 1-dimethylamino-2octanol (I). the latter being formed according to several pathways concurrently with ethylene oxide, 2-methyl-4-hexyl-1,3-dioxolane, and 2-hexyl-1,4-dioxane. Some of the higher mol. weight products are secondary products resulting from the action of epoxide on the primary reaction products II and I. The relative amount on each product formed depends on the ratio of starting materials and reaction temperature In the presence of an addnl. hydroxylic solvent such as ethanol, the solvent enters also into the reaction.

IT 21875-82-1P

> RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 21875-82-1 CAPLUS

2-Octanol, 1-[2-[[1-[(dimethylamino)methyl]heptyl]oxy]ethoxy]- (8CI) CN INDEX NAME)

OH
$$|$$
 O- CH₂- CH₂- O- CH₂- CH- (CH₂) 5- Me Me₂N- CH₂- CH- (CH₂) 5- Me

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